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Communications.

YELLOW FEVER.

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A paper from the pen of Professor Harvey L. Byrd was recently read before the Epidemiological Association of Maryland, upon the above subject, an abstract of which is published in your journal of July 26th, 1873.

Confining himself chiefly to facts that had come under his personal observation in the Southern States,

1st. The Professor states "that nothing certain concerning its source can be ascertained, and it is probable it was brought to this continent, from the western coast of Africa, by ships engaged in the slave trade.

2d. "It is comparatively unknown in the country. . . .

3d. "It depends upon a specific cause, which consists of organic matter, and it requires for its growth a certain continuous temperature. It is effectually destroyed by frost, and yet it may be said to exist perennially in some of our Southern cities. Its fungi must, however, be reproduced by a certain continuous temperature.

4th. "It is a disease *sui generis*, and is as distinctly contagious as small-pox.

5th. "One well-defined attack protects the survivor with almost certainty from a second.

6th. "The native African is exempt from yellow fever, and his descendants in this country, even to the fifth generation, are remarkably free from it.

7th. "It is a remarkable fact, that in localities in the Southern States in which bilious fever is most severe, yellow fever is not known.

8th. "Professor Byrd stated that its fungi had been carried hundreds of miles into the up country, in clothes and other articles of use."

To all, with two or three exceptions, of the above alleged facts and specifications of Professor Byrd, as the lawyers say, I enter my demurrer, and enter for record my special plea to every allegation of fact, and appeal to the bar or tribunal of all intelligent, scientific, practicing physicians in the yellow fever zone for a fair and judicial decision.

I do this not in a captious manner, but to elicit the truth in reference to the etiology, pathology and treatment of one of the greatest scourges of our Southern country. I have the greatest respect for Dr. Byrd, his talents, position and associations. But having long experience in the yellow fever zone, I am constrained to differ with him in almost every position taken, and almost every particular.

I will now proceed to a consideration of the Professor's declaration.

1st. Yellow fever was undoubtedly brought to this country by slavers engaged in the slave trade, from the coasts of Africa. Boston, New York and Philadelphia were at an early day deeply engaged in the slave trade; *that* was *then* considered legitimate mercantile traffic. Thus were established close commercial relations with the barbarous tribes of the African coast. Their ships returned full of the miasmata from that far off region of tropical sun and pestilence. The morbid effluvia in this way imported in

times of the year congenial to its growth and propagation, the leaven thus introduced, soon had their atmospheres in a ferment, an epidemic constitution of the air was established, and Boston, New York and Philadelphia then suffered from yellow fever in its most appalling form, long before it became the terror and scourge of our Southern cities.

2d. Professor Byrd says, "It is comparatively unknown in the country." And yet it is known to every physician and citizen, when malignant in New Orleans, its epidemic influence and ravages are extended hundreds of miles in this State and Mississippi.

3d. Professor Byrd says, "It depends upon a special cause, which consists of organic matter, and it requires for its growth a certain continuous temperature. It is effectually destroyed by frost, and yet it may be said it exists perennially in some of our Southern cities." *This proposition controverts itself.* The Professor says it depends upon a special cause, and *it* is *effectually destroyed* by *frost*, and yet it exists perennially in the South. *We have many frosts and even ice in our cities.* Our inhabitants will be startled to learn that yellow fever is continuously at their doors. Its fungi, I apprehend, have never been seen through the powers of the microscope. Its substance never analyzed by chemical research, or its "*evanescent shadow of a shade*" even approached by "spectral analysis."

4th. "It is a disease *sui generis*, and is as distinctly contagious as small-pox." Professor Byrd takes ground here against professional truths and all authority.

An eminent writer expresses the following views:—"The evidence, in our opinion, is conclusive and irrefutable, that the invariable origin of yellow fever is from a specific poison existing in the air of the localities where it prevails.

"In referring the production of yellow fever, in every case, to a local malarial cause, we mean also to deny its propagation by contagion. We are acquainted with no other disease of strictly local origin ever evincing or assuming a contagious character under any possible contingency. It never shows itself, except in certain latitudes and a certain zone." These views, I believe, are corroborated by most of our Southern physicians.

Now, how is it with the contagion of small-pox? It has a personal origin, and is distinctly communicable and contagious at one season as another. A person not protected by vaccination, or previous attack of small-pox, coming in contact with a small-pox case after the secondary fever comes on, is sure to take it, in winter or summer, cold, wet or dry, without regard to age, sex, nation or color. The Esquimaux from the North Pole, and the African from the Equator, are equally susceptible. This is the contagion of small-pox. That of yellow fever is very questionable, and never certain. Yellow fever is never *apparently* contagious, except in times of a prevailing epidemic.

There are imported cases of yellow fever often in New Orleans in the winter. No person fears taking it by visiting a patient at that time. Even medical students of the colleges have clinical instruction in such cases without any fear of contagion. It is a very common thing in the country for one to have it in a family with perfect immunity of others of the family all susceptible and unprotected by previous attack. In fact, on *my* first two visits to the Tropics I visited yellow fever cases with impunity, and it was only *remaining there during an epidemic that I contracted the disease*, during my last visit. I went there, too, not from Louisiana, but from the Polar regions or temperature of Lake Ontario, New York, and in the winter at that.

4th. Our author says "one well-defined attack protects the survivor with almost certainty from a second."

In this proposition I can support Dr. Byrd. I have heard of creoles and negroes having it a second time, and dying, too. I have not seen such myself. I have attended friends professionally since I had it, and staid in their rooms for a week, and slept with them, with perfect impunity.

6th. "*The native* African is exempt from yellow fever, and his descendants in this country, even to the fifth generation, are remarkably free from it," says the Professor. What! the disease *originate* in Africa, and the native population will not have it!

I never saw a native African have the disease, but those very men have told me yellow fever is as common there as chills here. I would not swear they were credible witnesses in the District Court. But this I will aver, that no longer ago than 1867, within four miles of this town, I saw two Africans of the pure native type have it and

die of it. In 1853 and 1855 many planters near this place suffered the loss of thousands of dollars from said disease. The native Africans that will not have it, probably had it in their native country. And their descendants are no more exempt than the native creole population of European descent.

7th. "When bilious fever is most severe yellow fever is not known."

Now what are the facts? All the towns on the Mississippi river that yellow fever never fails to enter when epidemic in New Orleans are surrounded by swamps acted upon by a more than tropical sun, emitting malaria of the most active kind, producing bilious fever of all grades, from its most simple type to the most malignant form.

Epidemiologists in this country believe all epidemics are self-limited. Yellow fever is governed in the same way. It has its initial point, rises to its crisis, culminates, declines, and dies. *Frost* has nothing to do with it. An epidemic yellow fever dies out in the Tropics, at Rio Janerio, or Havana, in the same length of time as at New Orleans or Galveston. *There they have no frosts.* Indeed yellow fever is analogous to all malarial disease. When cool nights and frost commence it assumes its greatest malignity, and is most fatal in its results.

In justice to Dr. Byrd I admit he is supported by the books. Some writers say an African or negro cannot have bilious fever. No, not even chills and fever. There is something in the color and texture of his skin that protects him. I will now illustrate what I have to say by quoting from your journal the language of the late Professor Knox, of Edinburg. "If you want a good text-book on any subject recommend me to the man that knows nothing earthly about the subject." If you wish to know anything about the negro, his susceptibility to disease, his general qualifications, go to Boston or London.

I admit a difference in the color, texture, and, chemical qualities of his skin. Not a portion of his body or blood but are chemically, essentially different from the white man, but he is open to the same contingency of disease. In this country *chills and fever* compel the African to reckon quinine as one of his necessary supplies, in addition to bread and meat.

Editorial Department.

Periscope.

The Treatment of Convulsive Diseases of Women.

Under the term Convulsive Diseases Dr. Barnes, in his recent Lumleian lectures, includes eclampsia, vomiting in pregnancy, syncope, vertigo, etc. In their treatment he lays down four principles:—

1. To moderate central nervous irritability.
2. To cut off emotional irritants or excitants.
3. To cut off peripheral irritants or excitants.
4. To eliminate all complicating morbid conditions.

The simplest measure in puerperal eclampsia, says Dr. B., is the best. That is, to puncture the membranes and leave the rest to Nature, at least, until we see she fails to carry on the process. And since even the gentlest examination is often enough to provoke a fit, I would advise the previous induction of anæsthesia by chloroform. Under the cover of this state, the catheter should first be passed to secure an empty bladder, and to procure a good specimen of urine for testing. Then at the same sitting, the membrane should be punctured by a quill, stilet or other suitable instrument. The diminution of the volume of the uterus by the draining off of the liquor amnii, lessening the pressure upon the vessels and the vascular tension, gives sensible relief. But another good effect generally follows; one it is true not without occasional drawbacks, but still a risk which must be encountered. The good effect is this; the moment labor is started, a call is made upon the nervous centres for nerve-force to be expended upon the uterus. This is its physiological destination; and if it can be kept steadily directed to this, its proper work, we may hope to obviate its diversion to convulsion or other morbid action. It is, indeed, a matter of observation that uterine action will often excite a convulsion. But, upon the whole, I am disposed to think that it acts beneficially; and we shall be the less

afraid of calling it into operation if we reflect, first, that labor must take place, and that it cannot be effected without this uterine action; and, secondly, that we can greatly diminish the excess of irritability by the use of chloroform.

The expediency of inducing labor when there is albuminuria without convulsion is more doubtful. As we have seen, it is not certain that convulsions will break out.

The induction of labor is the means of carrying off, or of discharging, the excess of nervous tension. But something more is commonly required. We cannot complete labor all at once. Sometimes we must wait, and not seldom, when the nerve-force has once got into a wrong channel we shall fail to turn it all to the proper direction. Measures for moderating the excess of central irritability are almost always useful. The most available of these is the induction of anæsthesia by chloroform. It should be carried to the surgical degree, that is, to the extent of rendering the spinal cord irresponsive to irritation of the sphincters. The beneficial effect of this is sometimes very striking. The convulsive fit is rendered less violent; it is shortened. When anæsthesia is induced in anticipation of a fit, this may be almost entirely averted, and is sure to be moderated. The evidence in favor of chloroform has been greatly accumulating since Simpson's time. Chloroform blots out memory, one source of emotion; it cuts off perception, another source of emotion; it lessens reflex irritability. When chloroform or equivalent anæsthetics cannot be given we must act on the same indications. We must procure absolute rest; exclude noise, light; avoid all suggestion of disagreeable ideas; avoid all irritation of the skin. All this is especially necessary at the acme of spinal and cerebral irritability, when a fit is on or impending.

The second indication, to cut off emotional excitants, is one that is generally studied. The means of accomplishing it are entirely dictated by the surroundings of the patient. The third indication, that is to cut off physical peripheral excitants, demands more attention. The first impulse of many when they see a person in a fit, no matter of what kind, is to dash cold water in the face. There may be no great objection to this in hysteria; in syncope it is undoubtedly beneficial; but in eclampsia it is decidedly injurious. Dr. Barnes added, I have seen it provoke a fit. Another not uncommon error in eclampsia is to apply blisters to the nucha, or mustard poultices to the calves. These applications do exactly what ought not to be done. The irritation they produce when the whole surface is in a state of hyperæsthesia, is doubly prejudicial. The immediate effect is often to excite a fit; and the continuous irritation set up in the skin can only keep up irritation of the nervous centres. There is no fact in medicine of which a stronger conviction has been forced upon me by observation than this, that all peripheral irritation is injurious in eclampsia. It is a sin against physiology. Hence the rule, when the situation dictates manipulation of any kind, to lull the system in the artificial sleep of anæsthesia before passing the catheter, before making a uterine examination, or proceeding to induce labor.

These principles of action apply with almost equal cogency to the treatment of epilepsy in the pregnant state; they apply with quite equal cogency to the treatment of obstinate vomiting in pregnancy.

In the chronic state of the menstrual or climacteric epilepsy, that is, when the fit has passed away, and when the indication is to break the morbid chain by preventing future fits, bromide of potassium, belladonna, and various metallic preparations, and a carefully ordered hygiene, are our chief allies.

The indication to cut off all complicating morbid conditions is one that rarely admits of being fulfilled in the urgent cases of eclampsia and of the vomiting in pregnancy.

The elimination of all complicating morbid conditions is especially necessary in the prevention and treatment of the convulsive and other nervous diseases of non-pregnant women. In a large proportion of cases, indeed, this constitutes the greater part of the treatment. This applies particularly to neuralgia, to hysteria, and, in a lesser degree, to the epilepsy of the climacteric period.

The particular form of dysmenorrhœa which is most commonly the attendant and forerunner of nervous disorder is that which depends upon obstruction or partial retention of the menstrual fluid. It would be too wide a digression from our theme to enter with any detail upon the pathology and treatment of dysmenorrhœa.

1. Beginning with the menstrual function, there is the pain, which is one of the features of dysmenorrhœa.

2. There is gradual wear and tear of the nervous system, attended with degradation of the blood.

3. Increased susceptibility to physical and mental impressions, marked in many cases by the outbreak of hysteria, or neuralgia, and in a more limited proportion of cases by epilepsy.

4. Where marriage ensues, it is generally unfruitful; proving again, by another test, that there exists an impediment to the due performance of the ovario-uterine functions.

5. Where the obstruction is removed, as in most cases it can be, we find the preceding conditions gradually disappear. When menstruation is performed easily, the nervous complications, which are really epiphenomena, subside.

If, on the other hand, the dysmenorrhœa be cured early, that is, before hysteria, neuralgia, or epilepsy have shown themselves, these disorders will, in high probability, not appear at all. The presumption is great that they will be prevented, and that any *inherited* predisposition to them will remain dormant. The treatment, then, both prophylactic and curative, must be directed against the dysmenorrhœa.

In single women, dysmenorrhœa is the most frequent attendant or exciting cause of hysteria or epilepsy. In a certain proportion of cases, however, no abnormality of structure or function of the ovaries or uterus is apparent. The exciting cause may spring up elsewhere; but in all there is a special proclivity developed by the normal ovario-uterine stimulus.

In married women, and in those who have borne children, not only may dysmenorrhœa arise, but metritis, congestion, displacement, and other affections are more frequent. They hardly ever fail to induce that general debility and nervous prostration which predispose to nervous disorders. It is generally a hopeless task to cure these nervous disorders, unless we begin by relieving the local disorders upon which they so greatly depend.

The Action of Calomel.

In a paper read before the Royal Medico-Physical Academy of Florence, and published in *Lo Sperimentale* for June, quoted by the *London Medical Record*, Dr. R. BELLINI, Professor of experimental toxicology in the Royal Institution of Florence, examines elaborately the change which calomel may undergo when taken into the mouth, or applied externally or hypodermically. He sums up his results in the following conclusions.

1. Calomel ingested during fasting is converted, in very small proportion in the stomach, in a much larger proportion in the small intestines, into a soluble compound of mercury.

2. This change is produced in the stomach by the alkaline chlorides and lactic acid; in the small intestine by the alkaline carbonates of the enteric juices.

3. In suckling women, in whom the large intestine does not lodge sulphydric gas, a soluble mercurial compound is formed in the lowest tracts by the action of the lactic acid and chloride of ammonium which are there present; but in non-suckling women, where this gas is present, sulphide of mercury is formed.

4. Calomel taken into the stomach during the digestion of protein aliments is entirely or in great part decomposed in that viscus.

5. In this decomposition metallic mercury is first set free, and a soluble compound of it is then formed.

6. Calomel taken into the stomach during the digestion of bread, starch, soup, gelatine, etc., undergoes the same changes, and in the same manner, as when taken during fasting.

7. This reaction, which takes place in the course of the intestinal canal when calomel is ingested, is attended with a greater or less increase of the alkaline chlorides in the system.

8. The alkaline chlorides when in small quantity diminish, and when in large quantity neutralize the action of the alkaline carbonates on the calomel.

9. In cases where sulphurous waters or sulphur are taken into the stomach, or in indigestion or acute or subacute gastric catarrh, the sulphydric gas which is formed converts the calomel into sulphide. If, however, the quantity of the gas be so small that it is all used in the formation of sulphide of mercury, the alkaline chlorides and the lactic and hydrochloric acids of the gastric juice are still capable of acting on the sulphide, so that the action of the calomel, or rather of its soluble compound, is only delayed, not neutralized.

10. During and after the administration of calomel, acid drinks and fruits should be taken very sparingly or not at all.

11. Magnesia or its carbonate favor rather than impede the local effects of calomel.

12. As little common salt as possible should be mixed in the soup and broth given to those who are under the action of calomel.

13. The purgative effect of calomel is increased by taking milk during or shortly after its administration.

14. Calomel may be injurious when given during the administration of acetate, anisate, carbonate, succinate, benzoate, etc., of ammonia, or to persons suffering from ammoniæmia, uræmia, cholera, typhus, etc.

15. Injurious results may also follow the administration of calomel simultaneously with chloride of ammonium, the alkaline and metallic iodides and bromides, and the alkaline sulphites, bromates, and iodates.

16. Although the hyposulphites produce a soluble compound of mercury by their action on calomel, they neutralize its action if given with it during digestion: for the hyposulphites are decomposed by the acids of the gastric juice, and sulphur is precipitated, which, coming into contact with the nascent hydrogen from the food, produces sulphydric acid; and this forms, with the calomel, an insoluble and inert sulphide of mercury. On the other hand, the hyposulphites rather increase the action of calomel, and may even render it deleterious, when given with it on an empty stomach.

17. Chocolate, sugar, gum, aloes, and soap, mixed with calomel in various officinal preparations, do not give rise to the formation of a soluble mercurial compound, and do not, therefore, increase the effect of calomel.

18. Opium and its preparations diminish the effect of calomel, not by any chemical action, but by blunting the sensibility of the organic fibre to the action of calomel.

19. Severe symptoms may follow the administration of calomel by the mouth to persons who have for a day or two only discontinued the use of the alkaline iodides, bromides, and sulphites.

20. When calomel is given on a full stomach to persons who have been taking the hyposulphites until a day or two previously, it may remain without effect in consequence of the presence of the sulphydric gas produced from the hyposulphites which have not yet been eliminated.

21. Calomel applied to healthy or diseased

external parts, or injected subcutaneously, is rendered soluble by the alkaline chlorides present in the system.

22. Severe local and constitutional symptoms may follow the local application or the subcutaneous injection of calomel in the case of persons who are taking the alkaline iodides, bromides, or sulphites.

23. Grave results may also follow the application of calomel to healthy external parts or its subcutaneous injection, in persons who are taking internally alkaline hyposulphites, or sulphur in small and repeated doses. On the other hand calomel may, notwithstanding the internal use of the above-named remedies, produce no such effect when applied to wounds or ulcers with secretions which rapidly become acid.

24. Clinical observation fully confirms the results obtained from chemical experiments and from those made on animals.

The Diagnosis of True Cholera.

The New York *World* published, not long since, an excellent article on this subject which well deserves reproduction in a strictly professional journal. We understand it is from the pen of Dr. A. L. CARROLL, whose researches in matters of hygiene always command attention. We extract as follows:—

To begin at the beginning: Although in some rare instances the access of malignant (Asiatic) cholera may be sudden, yet in at least 95 per cent. of the cases occurring in temperate climates the attack is preceded by a *painless* diarrhœa. Out of more than 5000 recorded cases this premonitory symptom is noted in all but 251, and in most of the apparent exceptions it is only said that its "existence was not ascertained." In cholera morbus, on the contrary, the seizure is always sudden, commonly traceable to its exciting cause in some error of diet; vomiting and purging set in simultaneously and violently, accompanied by severe colicky pains, and the ejected matters are *strongly bilious*, causing an acute sensation of burning or smarting. This excess of bile persists in the non-malignant disorder, whilst one of the earliest phenomena of epidemic cholera is a total arrest of the function of the liver, the discharges being absolutely *devoid of bile*. In sporadic cholera (cholera morbus) the pains first complained of are those of colic; in malignant cholera the first characteristic evacuations are attended with pains not abdominal but shooting down the thighs. In sporadic cholera the discharges, if long continued, may become almost or quite colorless, or may even come at last to resemble "rice-water" in some degree; but until the very latest stage they contain traces of bile, and if from their exhausting drain the patient be brought to collapse, this condition is reached through progressive weakening, and is manifestly the result of the profuse evacuation. In malignant cholera, on the other hand, almost immediately upon its accession the discharges assume the typical "rice-water" character, which consists in the presence of numerous solid white particles, very similar to grains of rice, suspended in a fluid which may vary from perfect transparency to a milky or ditch-water appearance, and their frequency bears no causative relation to the sudden, almost instantaneous prostration which constitutes the most striking feature of the disease. On the contrary, patients are often reduced to fainting with the first true choleraic discharge, and the most rapidly fatal cases are those in which the vomiting and purging are trifling in amount; in nearly all instances, indeed, these symptoms are greatly diminished or altogether suppressed as collapse sets in. This wondrously rapid loss of strength and an equally rapid lowering of the temperature of the surface of the body are, par excellence, the pathognomonic signs of true malignant cholera in its early stage, nothing comparable with them being observable in any other disease.

At a later period, in both of the disorders under consideration, cramps may occur; but here again there is a certain difference to be noted. In malignant cholera the cramps (which seldom appear until the "rice-water" discharges are fairly established) almost invariably commence in the fingers and toes, thence extending to the muscles of the arms and legs, of the jaw, and sometimes to those of the trunk, especially of the abdomen. In sporadic cholera the abdominal muscles and the calves of the legs usually bear the brunt of the spasm, which seldom affects the upper extremities. At this time, too, occurs in the graver malady a striking congestion of the veins, producing a purple lividity of the lips and tongue, and of the extremities, showing itself first at the roots of the nails and thence spreading sometimes over the whole body. The skin rapidly becomes shrunken and shriveled, as if it had been long soaked in water, the features are pinched, the eyes are glassy and flattened like those of a corpse, from actual transudation of their watery humor through the cornea; and these phenomena take place with inconceivable rapidity. The breath feels cool to the back of the observer's hand, and the temperature, as measured in the arm-pit, is lowered from 4° to 8°, or occasionally even more, below the natural standard. But in connection herewith are two circumstances which serve to distinguish malignant cholera from the coldest stage of its sporadic mimic. Notwithstanding the coolness of the skin the thermometer introduced into the rectum shows an unnatural elevation of the internal temperature, sometimes reaching a high fever heat, and the sufferer's subjective sensation is not one of chilliness, but rather of oppressive warmth, leading him to throw off the bed-clothing and beg for iced water to quench his insatiable, burning thirst; whilst the patient with cholera morbus, when he is cold *feels* cold, and his internal temperature, though above that of the surface, does not exceed the standard of health.

The most prominent diacritic signs may be compared in tabular form as follows:—

MALIGNANT CHOLERA.	SPORADIC CHOLERA.
Usually preceded by a simple painless diarrhœa, lasting from a few hours to two or three days. If sudden, commencing with a very profuse discharge from bowels, with or without vomiting, accompanied by severe pain down the thighs and almost instantaneous exhaustion.	Attack sudden or occasionally preceded by some nausea, colic pains, and intestinal rumbling. Commences with almost incessant simultaneous vomiting and purging, the pain being of a gripping nature.
Discharges—after the first—consist of a watery or turbid fluid, containing numerous small white rice-like particles. With a peculiar alkaline odor, but nearly or quite free from fœcal smell and devoid of bile.	Discharges at first the usual contents of stomach and bowels, afterwards becoming greenish or yellowish. If protracted, may be colorless, or even present some floating shreds. Very offensive, and so strongly impregnated with bile as to cause scalding and smarting in their passage.
Prostration and lowering of temperature very rapid, and bearing no relation to the frequency of the discharges.	Prostration and lowering of temperature progressive, and resulting from the exhausting drain of the discharges.
Surface temperature lowered from 4 degrees to 8 degrees, or more, but internal heat increased. Subjective sensation of oppression.	Surface temperature not so much depressed, and internal heat not above normal standard. Patient usually complains of chilliness.
Cramps usually beginning in fingers and toes, extending to arms, legs, etc.	Cramps commonly limited to abdomen and legs.
Expired air deficient in carbonic acid early in disease.	Expired air natural until death impends.
Urine suppressed early.	Urine rarely suppressed, unless in extreme collapse.
Purple asphyxiated hue of lips, extremities, and often of entire body, from intense engorgement of venous system and absolute lack of oxygenation of the blood, with suffocative difficulty of breathing.	Pallor of exhaustion; sometimes a livid look, but never the peculiar blueness of true cholera; difficulty of breathing less marked, and proceeding from weakness rather than asphyxia.
Indifference and apathy; the mental faculties, however, commonly remaining clear; excessive wakefulness.	Usually, much anxiety; the mind, in fatal cases, often-nest becoming cloud-ed toward the end. Most frequently, sleepiness from exhaustion.
The "facies cholerica," once seen, not easily forgotten, the features pinched and corpse-like; the eyes encircled by a dark purple band; the cornea flattened; the arteries in the neck pulseless.	In collapse, the features are pinched and the whole eyeball appears sunken; but the flattening of the cornea is absent, and the characteristic aspect of true cholera is wanting.

The Infective Products of Inflammation.

The eminent pathologist, Dr. J. BURDON SANDERSON, recently read an important paper before the Royal Medical and Chirurgical Society, which we epitomize from the *British Medical Journal*, May 24:—

The paper contained the results of researches made, for the most part, during the early months of 1872, for the purpose of elucidating the pathology of secondary inflammations. It was divided into three parts.

In the first, the nature of the process of inflammation was treated of, with special reference to the question how a primary inflammation gives rise, on the one hand, to general constitutional disturbance, and, on the other, to the establishment of new foci of inflammation in parts remote from the original seat of irritation or injury. To distinguish those inflammations which exhibit the tendency to produce these effects, the author used the adjective "infective," understanding it to express two sets of characteristics, one relating to what occurs at the original seat of inflammation, the other to the induced effects manifesting themselves elsewhere. Of the two groups of phenomena, those remote from the seat of primary action claimed most attention in relation to the present inquiry. They were described as consisting, partly in the springing up of new foci of irritation or inflammation along the course of the infected channels, partly in the occurrence of changes in the blood itself (not yet investigated) of such a nature as to show that it is impregnated with an infective poison. In investigations made by the author in 1867–68, it was found that, when in the lower animals, particularly the guinea-pig, local inflammations are produced, either in the skin or peritoneum, by the introduction of irritant substances, two distinct sets of consequences manifest themselves, viz., the production of a chronic disease affecting all the internal organs, having the characters of a chronic interstitial inflammation (*i.e.* irritative germination of the interstitial tissues of the lung, liver, spleen, etc), resulting in slow caseous or fibrous degenerations, and destroying life by gradual wasting: and an acute process, in which the same organs and tissues are affected much more rapidly, and in which two additional elements are met with, viz., fever and the formation of abscesses in the irritated tissues. To both these processes the author applied the word "infective." In certain cases both appear to spring from an infection derived from the same source, *i.e.*, from the same primary inflammation and progress in the same animal at the same time.

The second and third parts of the paper were entirely occupied with a summary of the experimental results. After a short account of the work of previous years, the author gives a detailed description of the more recent experiments on which his conclusions, so far as related to acute secondary inflammation, were founded. These were divided into two series. In those comprised in the first series the liquids of acute inflammations of great intensity were used, and the induced disease exhibited the characters expressed by the word septicæmia. The results of these experiments, twenty-seven in number (which were shown to the Society in a table), were as follows. Of the twenty-seven experiments, serous liquids were employed in eighteen; liquids of subcutaneous suppuration in four; liquids from softened infective nodules and lymphatic glands in three; and in two others, the contents of an inflamed uterus. The table

also exhibited an experiment in which blood of an infected animal was used. All these liquids were employed immediately after their removal from the living body of the diseased animal, and contained at the time bacteria. The animals observed were guinea-pigs, dogs, or cats. In four cases the liquid was injected into the jugular vein; in the rest, into the peritoneum. The quantities used varied from three minims to twenty-four minims. Although the liquids were all the products of rapidly progressing infective inflammations, the induced results were not all of equal intensity. In twenty out of the twenty-eight experiments tabulated, death took place within twenty-four hours. Of these, all, excepting three, received the excitant in the peritoneum Peritonitis existed in every case; and it was no less intense in those cases in which the liquid was injected into the jugular vein than in the others. After injection into the peritoneum, the pleura and pericardium were often as intensely inflamed as the peritoneum itself. In all the very rapid cases, the peritoneal exudation was viscid, and coagulated imperfectly. It contained pus corpuscles in small numbers; and the liquor puris often exhibited, when examined with high powers, a tremulous movement, due to the presence of extremely minute rods. In almost all the experiments tabulated the blood exhibited striking and unequivocal microscopical appearances. The liquor sanguinis contained rod-like particles, and possessed in some instances a peculiar viscidity, the nature of which must form the subject of a future investigation. In the larger animals death was preceded by phenomena which resemble those of putrid infection. This was shown in the paper by a careful comparison of the symptoms with those described by Bergmann as resulting from the injection of putrid liquids into the veins. But the quantity of a putrid liquid required for the production of the same effect is incomparably larger than that employed in the present experiments. In the course of the experiments it was repeatedly observed that highly infective inflammations, yielding exudation products rich in septic microzymes, may be induced by the introduction of chemical irritants, either into the subcutaneous tissue or into one of the great serous cavities, even when the liquids used are themselves destructive to the life of these minute organisms, or have been subjected to prolonged ebullition immediately before—all other precautions being at the same time adopted to guard against the possibility of septic contamination from without.

In the experiments of the second series, the infecting liquids used were not products of what might be called virulent inflammation, but of more slowly progressing inflammatory processes, chiefly characterized by softening or unhealthy suppuration, either of nodules or previously consolidated or infiltrated tissues. In the examples given, the material was derived from the diseased lungs of human beings or animals affected with chronic pulmonary tuberculosis in the stage of softening. The lesions were substantially the same in all; the serous cavities were inflamed, and contained variable quantities of exudation liquid charged with bacteria, and in most cases there were extensive adhesions and false membranes. In all, the viscera contained "infection-nodules," which were hard and firm externally, with purulent centres.

In the concluding paragraph of the paper, the author cautiously expressed the inferences which he thought justified by the experimental results. He thought that it had been shown that the condition expressed by the word septicæmia (including not only septic fever, but also the intense mucous and serous inflammations by which it is accompanied) may be produced independently of the entrance of septic matter from without, by the introduction into the serous cavities, or into the circulation, of liquids derived directly from living tissues in certain stages of inflammation; and that the process by which infective abscesses are formed in various organs and tissues, at a distance from some primary focus of inflammation, is of similar origin—both being due to the existence in the circulating blood of an infective agent, which, although of purely intrinsic origin, yet possesses all the characters of a septic poison.

The question of the origin of the infective agent itself, Dr. Sanderson regarded as entirely distinct from that of the intrinsic or extrinsic origin of the minute organisms by which its presence is declared, for "it does not at all follow because these organisms come in from outside that they bring contagion along with them; it may be readily admitted that they may serve as carriers of infection from diseased to healthy parts, or from diseased to healthy individuals, and yet be utterly devoid of any power of themselves originating the contagion they convey."

Hypochondriasis.

This disease is the subject of a lecture delivered at St. Mary's Hospital, and published in the *British Medical Journal*, by Dr. CHAMBERS:—

According to the nomenclature of the College of Physicians, hypochondriasis is defined as "some disturbance of the bodily health, attended with exaggerated ideas or depressed feelings, but without actual disorder of the intellect." This definition does not quite satisfy Dr. Chambers, as he is of opinion that the disturbance of the bodily health does not always precede (as the definition might lead one to expect) the deranged feelings, but that in a great many cases "the pasty tongue, the difficulty of swallowing, the loss of appetite, the painful and slow digestion of the stomach, the flatulence in the bowels, the weak, languid circulation, the loss of adipose tissue, and in long cases the atrophy of the heart, liver, pancreas, are consequences of the imperfect

innervation." The hypochondriac regards the present as worse than the past or the future—"hora novissima, tempora pessima." The suddenness of the attacks is noteworthy, as in the case of John Bunyan, who was a very good type of a hypochondriac. Dr. Chambers remarks that "a vague alarm of impending evil very frequently accompanies the misery, and sometimes (as in Bunyan's case) it takes the concrete form of a dread of hell, and thoughts about devils." Hypochondriasis may occur at any age, sometimes occurring very early in life. "Oftener it comes on in manhood, rarely after the meridian of life." There is generally a family history, either of some neurosis, as insanity, hysteria, or of chronic invalidism.

Hypochondriacs are not wanting in intellect, usually quite the reverse. Dr. Chambers has "not found hypochondriasis oftener preceded by excess of brain-work or of desk-work, than by athletic training."

A temporary loss of power in the voluntary muscles of a part, or more often of the whole body, paresis subitanea, is a common symptom in this disease. This paralysis affects most frequently the lower extremities; there is no anæsthesia, not even giddiness. The patient can stand, but he cannot go. These attacks of paresis come on in fine, bright weather, just the opposite of what one would expect.

Hypochondriacs generally complain of pain, which is not of a sharp, stabbing, neuralgic character, but a dull sort of burning sensation, deeply seated in the interior of the body. It moves about but slowly, and when it begins to move is usually moving off. Sometimes what the patient calls a "scratching" or "scraping," and which pathologists Latinize into "formication," is felt more superficially than the deep burning. The back of the head and neck, the soles of the feet, the palms of the hands, are favorite points for this sensation; but some also describe it as occurring in the abdomen. A feeling of weight in the rectum, in the uterus, or in the bladder, is often experienced, though they may be all no fuller than natural.

Hypochondriacs suffer from constipated bowels, owing to the paresis subitanea affecting the involuntary muscular fibres. Patients also complain of gaseous distention of the intestines, the gas not being the product of decomposition in the tube, but consisting chiefly of atmospheric air and carbonic acid exhaled from the blood. Indigestion is not an essential feature of hypochondriasis, although it may arise if paresis of the bowels be long continued or frequently repeated.

In protracted cases of hypochondriasis, there is almost invariably a loss of weight during the attacks, which quickly disappears on a normal condition of feeling being recovered. There is frequently derangement of the male genital functions in this disease. The urine is wanting in its normal acidity, and its specific gravity is variable. It often contains crystals of calcium oxalate, and an excessive quantity of renal and vesical epithelium. "Mucus also often is formed in excess in the urethra, and is squeezed out during straining at stool, or even stains the linen."

Hypochondriacs generally consider themselves the victims of some organic disease which has no real existence.

Hypochondriasis sometimes, though rarely, affects women. Patients laboring under the disease are, for the most part, truthful and confiding.

With regard to the pathology of hypochondriasis, Dr. Chambers regards it as a "drain upon the voluntary nerve-force beyond the supply," the supply being deficient in this disease, which probably has its seat in the gray matter of the nervous centres. Sometimes the cure of piles and ulceration of the rectum will also cure hypochondriasis.

Dr. Chambers divides the treatment of this disease into physical and moral. The physical measures he recommends are such as tend to keep up the due nutrition of the nerve substance. Devonshire cream, bacon, olive oil, pancreatic emulsion, or cod-liver oil, the last-named being the best remedy if the stomach can tolerate it. Strychnine and henbane may be required to improve the digestion. A large amount of bodily rest is necessary for some patients, exertion frequently retarding recovery.

To prevent constipation of the bowels, which the excess of rest is apt to produce, Dr. Chambers recommends green vegetables, salads, taraxacum, or seltzer water taken as a regular diet. If these do not suffice, a pill containing one-eighth of a grain of extract of belladonna combined with one grain of aloes may be given occasionally.

With respect to the *moral* treatment of the disease, the patient must be encouraged to be hopeful as regards the future. Much may be done for hypochondriacs by interesting them in thoughtful works of charity, and by leading them to ornament life with beauty and pleasure. They must hate ugliness in any shape, not for their own sake, but for that of others.

Dr. Chambers tells us that the medical treatment must be combined with the moral; neither alone is generally sufficient for a cure. The patient should not be advised to give up his usual occupation, as idleness is even much worse than worrying hard work. Opiates and alcohol are only admissible in those cases of hypochondriasis in which there is an actual deficiency of sleep, confirmed by independent evidence. But the sedative that is chosen must be given in very small doses, and, above all, must not be increased.

Lithotomy.

In a brief retrospect of the recent history of lithotomy, with an account of a new method of performing the operation, in the *Edinburgh Medical Journal*, Dr. H. DAVIDSON, physician to the Queen of Madagascar, passes in review some of the modifications of perineal lithotomy since the time of Rau

and Cheselden to the present period, with the object of showing that "the lateral operation is no longer held in the same esteem that it was," and of recommending an external semi-lunar incision and a limited internal incision with dilatation.

Dr. Davidson requires for his method of operating a special staff, an instrument which is at the same time a guide, and a dilator, and a knife. The staff is "a modification of Buchanan's rectangular one, the acute angle being replaced by a gentle curve, and grooved on its inner aspect." The guide consists of "two parallel and connected bars or blades, capable of being separated by means of a screw." It is about five inches long, "somewhat like a female catheter in size, straight, slightly flattened from above downward, and grooved on the left side." The knife has a "button-shaped extremity to fit the groove in the guide." "The blade is narrow throughout, but is slightly triangular, becoming a little broader towards the handle than at the point."

The form of the external wound in the operation is "semilunar," curved somewhat lower and deeper upon the left side than the right. The membranous part of the urethra having been exposed and opened, "the guide is introduced along the groove in the staff into the bladder." Then the staff is withdrawn and the blades are separated by the screw to such an extent as to render the tissues tense. The knife is then carried along the groove so as to divide the tense resisting structures by its edge being brought into contact with them rather than by actual cutting. The blades of the guide are now expanded to a sufficient extent. The size of the calculus determines the extent to which the knife is to be used and dilatation effected. The blades of the instrument being now separated, "it serves as a conductor for the forceps into the bladder. They slip along between the blades of the instrument. The stone is extracted in the usual way."

After alleging that in the lateral operation the incision passes indefinitely into the prostate, sometimes dividing it entirely, and at other times only notching it, and this quite apart from the purpose of the operation, he states the chief advantages of his own method to be the following. The incision and dilatation are in proportion to the size of the stone and the resistance of the tissues. The guide for the knife acts as a conductor for the forceps at the same time. From the open nature of the wound and its situation, the dangers of cutting in the dark are prevented. The evils of bruising and too extensive incisions are avoided.

The total number of cases operated on by himself and colleagues in the Antananarivo Hospital, by this method, was thirty-two. Of these eleven were by himself and twenty-one by Drs. Borchgrevink and Mackie. The general mortality he gives as one in sixteen, and he considers it has been above the average, even admitting that the cases were upon the whole more favorable for the operation than those met with in hospital practice at home.

The cases operated upon by himself were all under puberty, and the stones were of moderate size, the largest weighing two ounces one drachm. Some of those operated on by his colleagues were adults. One of the concretions weighed more than three and one-half ounces.

One of his own cases died a month after the operation, and a few days after he had actually left the hospital. The external wound had not entirely cicatrized. A *post-mortem* examination revealed extensive calculous disease of both kidneys.

One death occurred amongst the thirteen patients operated on by Dr. Davidson's colleagues before he left. No *post-mortem* examination was obtained, but the symptoms pointed to kidney disease.

Prevention of Cholera.

The following rules laid down by Mr. SIMON, of the English Government Board of Health, merit quotation. He remarks:—Cholera in England shows itself so little contagious, in the sense in which small-pox and scarlatina are commonly called contagious, that, if reasonable care be taken where it is present, there is almost no risk that the disease will spread to persons who nurse and otherwise closely attend upon the sick. But cholera has a certain peculiar infectiveness of its own, which, where local conditions assist, can operate with terrible force, and at considerable distances from the sick. It is characteristic of cholera (and as much so of the slightest choleraic diarrhœa as of the disease in its more developed and alarming forms) that all matters which the patient discharges from his stomach and bowels are infective. Probably, under ordinary circumstances, the patient has no power of infecting other persons except by means of these discharges; nor any power of infecting even by them, except in so far as particles of them are enabled to taint the food, water, or air, which people consume. Thus, when a case of cholera is imported into any place, the disease is not likely to spread, unless in proportion as it finds locally open to it certain facilities for spreading by indirect infection. In order rightly to appreciate what these facilities must be, the following considerations have to be borne in mind: 1. That any choleraic discharge, cast without previous thorough disinfection into any cesspool or drain, or other depository or conduit of filth, infects the excremental matters with which it there mingles, and probably, more or less, the effluvia which those matters evolve; 2. That the infective power of choleraic discharges attaches to whatever bedding, clothing, towels, and like things have been imbued with them, and renders these things, if not thoroughly disinfected, as capable of spreading the disease in places to which they are sent (for washing or other purposes) as, in like circumstances, the patient himself would be; 3.

That if, by leakage or soakage from cesspools or drains, or through reckless casting out of slops or wash-water, any taint (however small) of the infective material gets access to wells or other sources of drinking water, it imparts to enormous volumes of water the power of propagating the disease. When due regard is had to these possibilities of indirect infection, there will be no difficulty in understanding that even a single case of cholera, perhaps of the slightest degree, and perhaps quite unsuspected in its neighborhood, may, if local circumstances co-operate, exert a terribly infective power on considerable masses of population.

Alcohol from Flints.

That we can obtain whisky from a flint seems singular, but Prof. J. E. REYNOLDS, of the Royal Dublin Society, thinks we can, and as follows:—

Dr. Reynolds builds up his proposition upon the close parallelism of silicon and carbon in their chemical and physical characteristics and affinities.

He does not propose to show that spirits can be extracted from flint and quartz by mechanical processes, but hopes to satisfy his readers that, by indirect and purely chemical means, we can obtain from these familiar and widely diffused minerals, and from native silicates, bodies resembling in chemical action, and even in appearance, the well-known alcohol of wine.

Carbon has hitherto been considered the sole alcohol-forming element; but we shall see that the chief constituent of flint and quartz, namely, silicon, must now be admitted to share in this power, and likewise in the ability to form other remarkable compounds that it will be necessary for us to refer to in the course of this lecture.

Having prepared silicon from flint, we are in a position to compare it with carbon, to trace out the analogies which subsist between them, and then to show that some of the alcoholic and other *compounds* of carbon have their strange and interesting analogues in a silicon series.

A compound of silicon with hydrogen may be prepared in an impure state by treating a compound of silicon and magnesium with hydrochloric acid. We thus obtain a colorless, spontaneously inflammable gas, which burns with a bright light on contact with the air.

This siliciuretted hydrogen is evidently the chemical analogue of marsh-gas, the tetrahydride of carbon.

It is usual to regard marsh-gas as the typical carbon compound from which some alcoholic series may be supposed to spring, and, in fact, all the alcohols belonging to the group of which the well-known wood-spirit and spirit of wine are the chief members, are commonly regarded as derivatives of marsh-gas, in which a part, or all the hydrogen has been replaced by one or more compound radicals, such as hydroxyl, methyl, ethyl, propyl, etc. In the same way the silicon in siliciuretted hydrogen may be shown to be the nucleus round which can be grouped hydroxyl, methyl, ethyl, etc., so as to form certain alcohols.

New Symptom Pathognomonic of Masturbation.

Dr. BARADUC, in the *Jour. d. Conn. M. Prat.*, asserts that he has discovered that there exists constantly special characters, as ulcerations and recent scars, in cases of nymphomania or masturbation.

The vesicular form at the commencement, and the aspect of the miliary granulation, as well as the constant seat of the symptomatic ulcer on the surface, centre, or side of a recent scar, do not permit of the ulcer ever being confounded with any ulcer caused by constitutional influences, not even with the Hunterian chancre, with which it has some distant and slight relation; so that this kind of ulcer, which no one has described before M. Baraduc, is almost exclusive to adolescence in the two sexes.

After simple cutaneous wounds, or wounds complicated by burns, etc., upon the fresh scar, or that one in the course of formation, there arises a little vascular eruption, of the form and magnitude of a millet seed, containing a viscus material, which raises the epidermis, bursts in twenty-four hours, and exhibits an ulcer with yellowish-gray base, and the edges of which are sharply cut. The surface of one of these ulcers does not exceed two centimetres, and the depth is not greater than a millimeter. These granulations, followed by ulcerations, are often multiple, but always upon recent scars.

These little ulcers usually fade away in forty-eight hours. But this delay has always sufficed to M. Baraduc to diagnosticate with certainty that the patient in whom they appear had been abandoning himself or herself to masturbation. And he has constantly, by intelligent questioning, obtained the avowal of the fault by asking the question directly when the patient is alone in the room; besides this, these ulcers are renewed with periods of intermittence, which indicate a new fault.

A large number of observations, carefully collected, and with all the circumstances detailed, corroborate the memoir published on the subject by Dr. Baraduc. The consequence is that when this vice has once been discovered, it may henceforward be combated and cured. We then see those pale, languishing adolescents completely recover their physical, moral and intellectual health.

Treatment of Diabetes Mellitus.

According to SCHULTZEN, quoted in *The Doctor*, professor of medicine of Dorpat, the principal combustible materials in the organism are fatty matters, such as glycerine and the aldehyde of glycerine. These two ultimate substances result from the decomposition of sugar according to the formula, $H + C_6 H_8 O_6 = C_2 H_6 O_3 + C_3 H_8 O_3$.

In patients with saccharine diabetes the

ferment which in the normal state causes the decomposition of sugar is wanting. This ultimate product not being burnt in the organism, except when previously decomposed, is eliminated in its natural condition. The patient not only loses, without being able to utilize, one among the principal combustible materials, but must also undergo the labor of excreting the material which is useless to him. To be able to sustain this toil the organism has need of a great quantity of combustible albuminates; hence the insatiable appetite. The concentration of the juices provokes the great thirst, and the following disorders of cataract, tubercles and boils, which are all well accounted for by the alteration in the juices.

These different disorders completely disappear if the patient takes his ordinary combustible food, glycerine, and if the starch of the food be suppressed. These different data are in perfect harmony with the recognized law of Voit, which says, motion does not increase the decomposition of azotized material, but determines a formation more abundant in carbonic acid, and consequently a combustion of non-azotized substances of greater activity.

Schultzen therefore advises, in cases of saccharine diabetes, the following prescription: Very pure glycerine, 20 to 30 grammes; water, 700 grammes; citric acid, or tartaric acid, 5 grammes. To be drank in the course of the day (about a fluid ounce of glycerine in the twenty-four hours). This dose may be kept up for months without any injury being done; but if much more glycerine be given, diarrhœa may arise.

Hygiene of the School-room.

We find the following in an exchange:—

The absence of proper ventilation in the German school-rooms has already begun to tell upon the physical development of the young, and the case has become so alarming as to excite grave apprehensions on the part of the authorities of the Government. Dr. Rudolph Virchow, Professor of Pathological Anatomy in the University of Berlin, has prepared a special Report on the Diseases of the School-room, in which he gives a classification of the maladies that take their origin directly from improper ventilation and other defects of the places where children study. Though the attention of educators and physicians in Germany had been repeatedly called to the subject since the beginning of the century, or more especially since the reform in German education, this paper by Virchow is the first attempt to reduce the matter to scientific analysis, and to propose anything like a remedy. Lorinzer, in 1836, and Ebermaier, of a later year, had pointed out various evils; but in the effort of Virchow there is such clearness of statement and such unanswerable appeal to statistics withal, that we have reason to hope that not only in Germany, but in our own country as well, there may be some response to these valuable suggestions, in improved atmospheric supply, better desks, and everything else that can contribute to the health and enjoyment of the young students in the schools.

Virchow takes up first the diseases of the eye, and begins with short-sightedness. Here he has been preceded by Ware, of England, but more prominently by Hermann Cohn, of Breslau. This last author made his researches himself, and all his statistics are of his own compilation. He first made examinations of thirty-three schools in and around Breslau, and then of the condition of the eyes of 410 students in the University of the same city, and the result was, that of the 10,060 scholars whom he examined, seventeen per cent. had abnormal vision. Of the students in the University, sixty-eight per cent. were of imperfect sight. Virchow enlarges upon the data furnished by Cohn, and shows that the evil is on the increase, and that there is a lamentable absence of effort to mitigate it. He then takes up special forms of disease relating to other organs, and divides them into six classes: habitual headache, bleeding of the nose, goitre, curvatures of the spine, diseases of the organs of the chest, and diseases of the organs of digestion. Of a large number of school children examined eighty per cent. have been found by Becker to be suffering from headache; Guillaume shows that twenty-one per cent., in certain regions of Europe, have the goitre; the same author finds that out of 731 pupils as many as 218, or nearly thirty per cent. had deviations of the spine. But the chief form of disease generated in the school-room is pulmonary consumption. These statistics are simply alarming; but they are of so elaborate a character that we must pass over them.

The result which Virchow reaches is, that there has been an inexcusable neglect of the health and comfort of school children in Germany; that the ventilation is outrageously poor; that the desks are placed at an angle positively injurious to the eye; that the seats have backs that render ease an impossibility; that the manner in which the light is admitted is altogether neglected; that there is not a proper regard to the comfort and ease of the mind in the distribution of the studies; and that the drinking water is often unfit for either man or beast.

Professor Romberg.

The *Berliner Klinische Wochenschrift* pays an elegant tribute to Romberg (who died on June 16th), associating him with Sir Charles Bell and Johann Müller. He was born in 1795, at Meiningen. In 1831 he took charge of the Cholera Hospital at Berlin. His most important works were on "Nervous Diseases," 3 vols., a treatise on Sir C. Bell's investigations, on paralysis of the respiratory organs, report of the cholera epidemic of 1837. He died from heart disease, aged seventy-eight years.

MEDICAL AND SURGICAL REPORTER.

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S. W. BUTLER, M. D., D. G. BRINTON, M. D., Editors.

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THE TRUE WAY TO SUPPRESS QUACKERY.

Who is to blame for the quackery that confronts us in every newspaper? That thrusts its nauseous handbills at us in every crowd? That fills the public with a warranted distrust of all medical science! Who? Ourselves, the members of the regular profession of medicine.

For what is the mother of all superstition, folly, groveling weakness? Ignorance. And this ignorance we do our best to maintain; or at least we do *not* do our best to dispel.

We have often expressed in these pages the ideas lately urged by the *Medical Press and Circular*, and they cannot be too often repeated. It justly points out that the best way to put down quackery, in and out of the Profession, is by educating the people on Medical subjects. It is a general belief with the people that it is impossible for them to investigate and understand questions relating to Medical Science; and this belief has been strengthened by the general bearings of the Profession toward the public in these matters. While there is undoubtedly much in our science and art that requires a well trained mind to understand and comprehend, there is still nothing so mysterious and profound in the science and practice of our art but that their general principles may be made intelligible to most people. True, there is a great amount of technical language, which it seems difficult to set aside, and without a knowledge of which, on the part of the people, it would be impossible in some instances to properly apprehend the meaning of much that relates to the subject of medicine; but the facts and truths which go to make up its great leading principles may be easily expressed in the plainest and simplest language.

Great men find no difficulty in making themselves thoroughly understood in dealing with some of the most abstruse subjects. The large audiences that attended the lectures of Professor Tyndall were pleased and delighted with his experiments and explanations on the subject of light, than which no scientific subject is more difficult to comprehend by ordinary minds. The success, also, which attended the lectures on "Anæsthesia," lately delivered at Steinway Hall, New York, by Professors Sims, Doremus, and Hamilton, goes far to show that the people are able to understand and glad to have scientific information.

We are glad to see a real move in this direction in England. This is that a society has been established to circulate gratuitously, through the clergy, inspectors, guardians, and others, a series of tracts.

The object is said to be the distribution of tracts and leaflets on sanitary subjects, written by qualified men; and the first aim is to stem the stream of patients ever flowing into hospitals, infirmaries, dispensaries, and asylums. As to the result, the following quotation is given:—Learning "better to appreciate the beautiful world in which we live; avoiding many of the sufferings to which we are subject; enjoying many blessings of which we are not worthy; and escaping many temptations we cannot wholly

resist." (*Lubbock's Pre-historic Times*, p. 488.)

This is as it should be, and if only the tracts are written by master hands, in the proper spirit, it will soon bear good fruit.

Notes and Comments.

Unbroken Amnion.

Dr. C. G. Polk, of this city, sends us the following note on this subject:—

"About ten years ago, when I was quite a young practitioner, I attended a woman who, after a tedious, yet not severe labor, expelled the child encased in the membranes, containing a large portion of the amnion liquor; the placenta, however, was not expelled, and gave considerable trouble to remove it. The child yet lives to meet the fate marked out, as the superstitious think, for those whose births were attended with unusual and strange occurrences. I, no doubt, should have ruptured the membranes and facilitated the labor. It is probable that were all cases left to the unaided resources of nature the number of unruptured amnions would be far more frequent."

Glycerine of Borax in Facial Erysipelas.

Prof. D. M. Salazar, of the Hospital Nacional, Madrid, reports, *El Amfit. Anat. Espan.*, that he has cured eight cases of facial erysipelas in forty-eight hours by this remedy. He applied the solution to the diseased parts with a brush, and then covered them with a mask of raw cotton. After twenty-four hours all the symptoms, local and general, were notably diminished, and the next day all the phlyctenulæ had disappeared and desquamation was commencing. All medication was then discontinued, except that a decoction of sambucus and althæa was used as a wash to favor the desquamation.

Mummification.

D. Lucquet has found, by observation of the process of embalmment, that the embalming of the Egyptians was really due to the saturation of the body in natrum solution, where, according to law, it should remain seventy days. The extraction of the viscera, the use of various aromatics, and of bandages were but accessory means; the essential being the desiccation of the skin and the gradual evaporation of the animal liquid in a very dry climate, which took place in about sixty-five days.

Amykosaseptin: an Antiseptic.

Amykosaseptin, or amycetoseptin, is an antiseptic consisting in a solution of borax combined with decoction of cloves. The author of a paper in *Allg. Med. Cent. Zeit.*, No. 46, 1873, thus describes its action:—1. Boric acid prevents bacteria from penetrating into the tissues, and thus prevents rot. 2. It destroys bacteria which may already exist in the tissues, and thus arrests rot. 3. It speedily kills true infusoria. 4. It is often a deadly poison for articulated animals and their larvæ. 5. It does not prevent the development of mildew. 6. The decoction of cloves only possesses, in a limited degree, the property of preventing the development of mildew, but it certainly delays the process, and renders it difficult.

Treatment of Gonorrhœa by the Inhalation of Turpentine.

In a recent article on the "inhalation of balsams," Prof. Dittel, of Vienna, reported marked success for this method of treatment in pyelitis and renal catarrh. Prof. Zeissl has pursued the same method in two cases of gonorrhœa, and cured one in twenty-five and the other in eighteen days. He believes with Weikart that the anti-blenorrhagic action of these balsams is not due to the ethereal oils but rather to the resinous principles. These latter are always detected in the urine during treatment, while there is no trace of the former.

Treatment of Chronic Eczema of the Genitals.

Dr. de Montmya recommends the use of tincture of iodine in the treatment of the chronic eczema, and intertrigo of the genitals, more especially combined with the use of a lotion of one part of corrosive sublimate to 250 of water, a few drops of spirit being used to dissolve the corrosive sublimate.

Treatment of Lachrymal Fistula.

M. Luson recommends the use of catheterism of the duct combined with the application of caustic (nitrate of silver) to the fistulous orifice, and in some cases the application of chloride of zinc as a caustic to the opening. He reports favorably of the latter method.

Murder of a Physician.

We are sorry to have to record the death, by violence, on the 16th inst., of a prominent and respectable physician of Selin's Grove, Pa., Dr. PETER RICHTER WAGENSELLER. The Harrisburg *Telegraph*, from which the following account is taken, says:—

The facts of the matter, as near as our informant could give them, are as follows:—A hired man, in the employ of Dr. Wagenseller, was quite intemperate in his habits, and the Doctor had notified the landlords not to sell him any liquor.

On Saturday he found the man under the influence of liquor, and as he (the Doctor) came down the street, and when near the Keystone Hotel, he met Wenrich, and accused him of selling his man the liquor. Wenrich denied it, and the Doctor still asserting it, Wenrich called him a liar. Dr. W. then struck Wenrich across the mouth with the back of his hand, when Wenrich, who had his knife in his hand and was striking at a post, turned and struck the Doctor in the bowels, inflicting a mortal wound, from which he died, as above stated.

Dr. Wagenseller was a son of the late Dr. Jacob Wagenseller, who many years ago represented that district in the State Senate. The deceased was about fifty years of age, and a leading physician in the county. He was a graduate of Pennsylvania College, at Gettysburg, ranking highest in his class, and his death is a great loss to the community in which he resided.

Wenrich was arrested and committed to prison to await an investigation of the case.

Thus is the "evil spirit of rum" responsible for the death of a worthy and good man. Verily, Shakspeare was right, to call it *devil!*

Triplets.

Two cases come under our notice this week. On the 30th ult., died at Zanesville, Ohio, Sheridan Stoneburner, who, with his brothers, Grant and Sherman, who survive him, was born Nov. 15th, 1865.

The New York *Daily Times* says:—

A correspondent writing from Ypsilanti, Mich., on the 9th inst., says:—An Irish woman, named Murphy, in this city, on Tuesday, the 5th, gave birth to three boys, weighing respectively five, seven and eight pounds, and on the next day she went to the church with the three infants and had them christened by the names of John, Thomas and Patrick Murphy. A great many of our citizens have called upon the little strangers. Mother and sons are doing well.

Canadian Medical Association.

The Association met early in August, at St. John, New Brunswick. Dr. WM. MARSDEN, of Quebec, was elected President for the ensuing year.

Jefferson Medical College.

It is announced that Professor JOSEPH PANCOAST has withdrawn his resignation of the Chair of Anatomy in Jefferson Medical College, and will lecture the coming session as usual.

CORRESPONDENCE.

Quinia Sulphas vs. Malaria.

EDS. MED. AND SURG. REPORTER:—

Is sulph. quinia an abortifacient?

I, for one, answer emphatically—*no.*

Is malaria an abortifacient?

I answer, with greater emphasis—*yes.*

I was led to some thoughts upon this question from finding, on reviewing your journal of January 25th, 1873, an article from the pen of Samuel Raines, M.D., White Haven, Tenn., that had previously escaped my notice. It is simply a review or criticism of a paper written by Dr. Bailey, of Knoxville, Tenn., and published in the REPORTER of November 9th, 1872.

This article of Dr. Raines deserves some comment, especially from physicians of long experience in malarious localities, and I hope it will meet with some from pens more able than my own. The article above, *unanswered*, is well calculated to lead the young and inexperienced practitioner into an error in practice, an error of the gravest kind, that might bring suffering and death to his patients, and professional discredit to himself.

Dr. F. K. Bailey gives his views of the morbid effects of malarial disease upon the uterus during pregnancy, and the physiological effects and therapeutic efficiency of sulphate of quinia in removing and warding off intermittents, relieving the uterus promptly from all irritation and morbid contraction thus produced. This paper is truly philosophical, brief, straightforward, and *practical*, in a preëminent degree. The use of quinia to meet other pathognomonic phenomena that may arise from malarial poison, not only in pregnancy, but in all cases where indicated as an anti-periodic, meet with my full approbation and cordial endorsement. In all cases where *indicated* use it "*freely and fearlessly.*"

I will now pause and let Dr. Bailey speak for himself.

"The result of much and continued observation in the use and effects of sulph. quinia was, that whenever the agent was indicated as an anti-periodic it was freely and fearlessly exhibited. It was very common to find a pregnant woman suffering from uterine pain during a fit of ague, and abortion or premature labor often occurred in cases when timely anti-periodic treatment could not be carried out. In all such cases it was my practice, as well as that of others, to administer quinine promptly and freely. There was no other way to carry a

patient over such a period of danger, except to suspend the periodical tendency.

"In very many cases of labor occurring in the summer or autumnal months I have given quinine with the most happy effects. It was often the case that a natural labor at term was ushered in by a chill. . . . At this juncture a full dose of quinine would equalize the circulation and render the contractions more forcible."

I will here remark that its action in such cases is not as a direct parturient, but by allaying morbid uterine malarial irritation, through its probable direct action on the spinal system of nerves. Opium, morphine, chloral and chloroform act on the same principle, by quieting general and specific morbid irritation, give natural labor pains, and parturient effort full play, and in this manner greatly alleviate the sufferings of the patient, abbreviate the time, and facilitate labor. But to say those articles are parturients, in the same sense as ergot, would be absurd.

Now let us see what Dr. Raines has to say in support of his position.

"With experience based upon a few years' practice in one of the most malarious regions of West Tennessee, . . . with a practice sufficient to warrant a conclusion, I am induced to assert that abortions and premature labor are seldom produced directly by ague, unless in a previously broken constitution, or habituated person. While on the other hand I believe that the sulph. quinia, given in ordinary doses, repeated at short intervals, to a pregnant woman, with the expectation of arresting an attack of intermittent fever, is attended with great risk and danger to the fœtus in utero."

Dr. Raines further says he has witnessed its abortive effects "when malaria was not suspected." He relates the two following cases in support of his last observation and assertion.

"Mrs. W., aged 26, healthy, save a previous ague, . . . had a chill at 11 A.M., October 1st, very light, and was able to go about in eight hours; expected a return of the chill about the same time next day. Directed to eat no supper, and commence at 11 o'clock P.M. and take three grs. quinine until she had taken eighteen grains. She felt pains in the abdomen in an hour after taking the first dose. Quinine was continued with increasing pain, and she finally aborted at 12 o'clock A.M., October 3d.

"A. W., aged 23, healthy, save a chill at or about 4 o'clock, Sept. 24. Expected return of chill Sept. 26th. Ordered to commence at 6 A. M., Sept. 26, and take 3 grs. quinine every 3 hours, until five doses were taken. After the second dose she had uterine pains, which increased until 1 o'clock P. M., when the child was born, in its seventh month. Could trace it to nothing save quinine."

The two above cases were given by Dr. Raines to fully illustrate the abortive effects of quinine where malaria was not suspected. He says above, in terms, "I have witnessed it where malaria was not suspected." And yet, he says, "both had chills" (malarious fever); and yet, with the plainest pathognomonic phenomena of malarial disease, he could not see it, with all his acumen and extended observation in that rich field of malarial poison—could trace the unfortunate result of the above cases to nothing but quinine.

The doctor was certainly mistaken in those two cases not being malarial fever. And, I think, he labored under a greater mistake in conclusion in regard to the cause of his unfortunate miscarriage and abortion. A careful and experienced practitioner would have expected trouble, and as the paroxysms of intermittents often anticipate their time by many hours, he would have prepared his patient for that by commencing the quinine at an early hour, and combining, in small doses, an opiate with it, or giving a full dose of morphine on the first symptom of pains. I am satisfied that the commencement of pains in those cases was the commencement of the intermittent paroxysm; not at all attributable to the quinine, but occurring in defiance of it. In the two above cases, I do not hesitate to assert, a timely anti-periodic treatment had not been carried out. The pain coming on soon after giving the quinine was a mere coincidence. And it is very common for a patient to have a paroxysm of fever, once, after sufficient quinine has been exhibited to suspend it, unless mixed with a narcotic, or something else, to assist its anti-periodic effects.

I have two cases now under treatment for intermittent fever, both *enciente*, and in their ninth month.

Mrs. Mc., æt. 22, has had three attacks of intermittents, with chills, accompanied with uterine pains so severe that her physician was sent for, anticipating an abortion or miscarriage. Has been relieved every time by the exhibition of quinine, and is now in pretty good health, expecting her accouchement every hour or day.

Mrs. M., æt. 20, primipara, German; has been here six months; never had a fever until recently. About two weeks ago was attacked with chills and fever every day, accompanied by severe uterine pains. Sent for a midwife, who mistook the case for regular labor three days. I was then called in. Found the patient in a severe febrile paroxysm, accompanied with severe uterine pains. Prescribed 10 drops tinct. gelsemium and 10 drops tinct. opium, every hour, until fever and pain abated, and then quinine in two-grain doses, every two hours during the intermission. The fever and pain stopped after the second dose. Commenced the quinine, and, after three doses, stopped that. She had taken castor oil, with effect, previously. I saw her the next day about two hours before she expected the chill. Gave at once 12 grs. quinine and ½ gr. sulph. morphia. It carried her safely over the chill and paroxysm of fever, and she has been apparently well ever since, taking regularly every morning 3 grs. quinine to prevent a relapse. The midwife has gone home,

and when I inquire about her health, she replies in the only English she can use—"*I feels goot.*" She is also expecting her confinement every day.

I have exhibited quinine in many cases like the above, without, in one single instance, producing any unpleasant results. Not only have I used it thus to suspend a chill, but have used it in cases of pregnant, unacclimated ladies, as a prophylactic, for months during their term of gestation, with the happiest effect and complete success. The conclusions I have arrived at are not on a "few years' practice in a most malarious region," but over twenty-five years.

MADISON MARSH, M. D.

Port Hudson, La.

Two Cases of Opium Poisoning.

EDS. MED. AND SURG. REPORTER:—

I send for insertion in your Journal the following notes on two cases of opium poisoning treated with veratrum viride.

Saw E. C., Dec. 23d, 1871. Boy, age 18, disease pneumonia of right lung. Gave calomel grs. viij; opium grs. ij, through the night. Saw patient at 10 A. M., next day; found him breathing slowly, sleeping profoundly, could not be waked up by shaking. Finally aroused him a little by dashing cold water in his face. Breathing six times per minute, pin-point pupil, pulse slow, and the perspiration pouring off him. Diagnosed opium poisoning. Gave immediately ten drops Tilden's fluid ext. veratrum viride. Waited twenty minutes, gave eight drops more. In the course of one hour he vomited freely, at the expiration of two hours, breathing twelve times per minute, pupils natural, and wide awake; patient recovered. His mother was an opium eater, and had given him an overdose.

Case 2.—I was traveling by private conveyance, and stopped over the Sabbath at a farmhouse near the town of S. A son-in-law of the old man with whom I was staying had been drinking for a week or ten days, but was trying to overcome its effects. His wife, on Sabbath night, learning that I was a physician, asked me to see Mr. E., saying she was afraid she had given him too much morphine. Condition thus: pulse very slow, skin cool, pupils contracted, complaining of great cramping in the stomach and bowels. I attempted to count his breathing, but the upheavals of the chest were so slight I could not count it. Asked the lady how much morphine she had given him; she said seven doses; I asked her to show me about how much she gave at a time, and judging from the quantity she put out, he had taken three and a half or four grs.

I gave ten drops Tilden's fluid ext. veratrum viride, saying to her if it did not vomit him in an hour to let me hear from him. In less than an hour he vomited freely; pupils more natural, breathing ten per minute; I told the lady if he vomited too much to give him a little whiskey. Next morning he was all right. Have given it in a number of cases since, less pronounced, with the same results.

A. N. CARRIGAN.

Lisbon, Ark.

NEWS AND MISCELLANY.

Artificial Fibrin as a Diet.

Dr. John Goodman, in a communication to the *British Medical Journal*, says of artificial fibrin: "As a member of the British Medical Association, and in the common interests of humanity, I have much pleasure in calling attention to my discovery of this new dietetic substance. So far as I have employed it, it promises fair to be invaluable in medical practice, especially in cases of feeble alimentation and deficient nutrition, and second to none in those cases where rejection of food forms a prominent feature, or where the appetite and digestive powers are reduced to a minimum. As fibrinous material, it is of course highly nutritious, and eminently adapted to all cases where there is a deficiency of fibrin in the blood. It is, perhaps, unparalleled in its qualities of lightness and digestibility, and is, moreover, a great delicacy. In many urgent cases of rejection of food, etc., it not only remains where an egg otherwise cooked would not be tolerated, but its presence in the stomach has been found to create a feeling of want rather than of superfluity, and to promote rather than decrease the appetite for food.

The production of this substance is within the reach of every sick room, and is effected with great facility. It is formed by exposing albuminous material to the operation or influence of cold water, for a given period; and on account of its great plenteousness we employ the ordinary hen's egg for its production. When the shell is broken and removed, and its contents are immersed in cold water for twelve hours or so, they are found to undergo a chemico-molecular change, and to become solid and insoluble. This change is indicated by the assumption, by the transparent white of the egg, of an opaque and snowy white appearance, which far surpasses that of an ordinary boiled egg. The product, and the fluid in which it is immersed, must now be submitted to the action of heat to the boiling point, when the fibrin will be ready for use."

We will add that on trial we find that, for table use, the eggs thus prepared are most excellent, and this method of preparation will no doubt soon come into general use. Instead of boiling in the water in which the eggs are originally placed, they may be removed therefrom after standing twelve hours and put at once into boiling water.

Life in India.

A British surgeon writes:—

"Outside it is 120°, and even 90° Fah. day and night indoors. The sun pierces your very marrow, the flowers have no fragrance,

the fruit no flavor. But if a man is careful in all things, as regards eating, drinking, smoking, chastity, and adopting precautions against the sun, as a rule he does very well. Men take too much out of themselves, by riding and raquets, and are careless as to clothes. During the day, blue goggles; a warm shooting coat, padded down the back with cotton; a broad-brimmed hat; a roller round the stomach; very little animal food; no wine until sunset (weak brandy and soda the most harmless); a sleep from twelve to two before lunch; take exercise, when you can, early in the morning; never be idle; these are the precautions to adopt against this climate, which was never intended for Europeans."

Prize on Tubercular Meningitis.

The Hospital Medical Society of Paris has decided that the competition for the prize founded by M. Phillips in 1862, for an essay on the curability of tubercular meningitis, shall close on March 31st, 1875. The subjects to be discussed in the essay are: 1. The differential diagnosis of tubercular meningitis. 2. Its etiology and preventive treatment. 3. The therapeutic indications furnished by the symptoms observed in the course of the disease when once declared. Essays, written in French and signed with a motto, are to be sent in to Dr. Besnier, 87 Rue Neuve des Maturins. The value of the prize is 1200 francs.

—Dr. R. T. Dunn, Deputy U. S. Marshal, was assassinated in his bed, at Corinth, Miss., on Friday night, August 8th, by some unknown person. It is thought he was fired at through a window with a gun loaded with buckshot, which was placed within a few feet of his head.

—The cattle plague has broken out afresh in Russia. The Prussian Government has forbidden the import and export of cattle or meat, as well as all animal substances, except milk, butter, and cheese, across the infected frontier.

—We regret to hear that M. Littré, the celebrated French lexicographer, who has just completed his Dictionary of Medicine, Surgery, and the Allied Sciences, is suffering from a malady which it is feared will shortly prove fatal.

—At a competitive examination for nomination to a West Point cadetship in a Congressional district of Tennessee, recently, WM. M. ALEXANDER, son of Dr. W. W. ALEXANDER, of Athens, was the successful competitor.

—It is stated that the costs of the recent lawsuit to establish the claims of women to medical education at Edinburg University amount to $4241, and that those costs have been thrown on the lady students.

—Dr. Thos. S. Kirkbride having declined, the Governor has appointed Dr. Wm. Corson, of Norristown, as one of the Commissioners to select a site for the new Insane Hospital.

For this hospital the profession have to thank the State Medical Society of Pennsylvania, incited to action by resolutions offered and ably advocated by Dr. John Curwen, of Harrisburg.

This alone is sufficient answer to the cavillers, who, while absenting themselves, are constantly exclaiming against this organization for doing nothing but junketing.

—Members of County Medical Societies in Pennsylvania should see that their names are properly given to the Permanent Secretary. We have heard much complaint on this head, both from that official and others.

The law is that when a Secretary of a County Medical Society fails to forward a list of officers and members and their post-office addresses to the Committee of Publication, all permanent members of said County Society lose their membership in the parent body, and all the names of members of that County Society are omitted from the annual roll. Attend to your duty, gentlemen.

—Dr. Lyman Congdon, of Syracuse, formerly Superintendent of the Willard Asylum, has been appointed Superintendent of the Inebriate Asylum at Binghampton, vice Dr. Dodge resigned.

—Dr. H. W. Berend died in Berlin on June 25th, of heart disease and ascites, at the age of sixty-four. He was the director of a well-known gymnastic orthopædic institution, which he founded forty years ago.

OBITUARY.

DR. JOHN H. BEECHER.

The semi-annual meeting of the Albany County Medical Society took place June 11th, 1873, Dr. Van Derveer in the chair. The minutes of the annual meeting were read and approved. The President then rose and said:—

"As our Society increases in members, the number of those whom death takes from us must necessarily become greater, and for the first half of our present year we have been called to mourn the loss of an unusual number. To-day I have to announce to you the death of Dr. JOHN H. BEECHER, who died of inflammation of the lungs, June 1st, in the 45th year of his age. He had long been a member of the Society, but from his location in the country, where he was engaged in a laborious practice, he never became an active member; seldom meeting with the Society, and to many of the younger members was a comparative stranger."

DEATHS.

SICKLER.—At the residence of her husband, Dr. John R. Sickler, of Mantua, N. J., on the 18th inst., Eliza L. Sickler, aged 50 years.

ZANTZINGER.—In this city, August 16th, Dr. Alfred Zantzinger, aged 34 years.